jc662 U.S. PTO
03/20/00

Box Patent Application
Commissioner of Patents
and Trademarks
Washington, DC 20231

jc586 U.S. PTO
09/531016
03/20/00

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Edlund et al.

WARNING:Patent must be applied for in the name(s) of all of the actual inventor(s). 37 CFR 1.41(a) and 1.53(b).

For (title): A System and Method for Scheduled Events to Subscribe to Live Information Topics

1. Type of Application

This new application is for a(n) (check one applicable item below):

_X_ Utility

___ Design

___ Plant

NOTE: If one of the following 3 items apply them complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.

___ Divisional

___ Continuation

___ Continuation-in-part (CIP)

2. Benefit of Prior U.S. Application(s) (35 USC 120)

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S , then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

___ The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed Which Are Required For Filing Date Under 37 CFR 1.53(b) (Regular) or 37 CFR 1.153 (Design) Application

_10_ Pages of Specification and Abstract

_7_ Pages of Claims

_3_ Sheets of drawing

_X_ Formal

___ Informal

NOTE: "Identifying indicia such as the serial number, group and unit, title of the invention, attorney's docket number, inventor's name, number of sheets, etc., not to exceed 2 3/4 inches (7.0cm in width may be placed in a centered location between the side edges within three fourths inch (19.1mm) of the top edge. Either this marking technique on the front of the drawing or the placement, although not preferred, of this information and the title of the invention on the back of the drawings is acceptable." Proposed 37 CFR 1.84(1). Notice of March 9, 1988 (1090 O G 57-62)

4. Additional Papers Enclosed

___ Preliminary Amendment

_X_ Information Disclosure Statement (37 CFR 1.98)

_X_ Form PTO-1449

_X_ Citations (2 References)

___ Declaration of Biological Deposit

___ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.

___ Authorization of Attorney(s) to Accept and Follow Instructions from Representative

___ Special Comments

___ Other

5. Declaration or Oath

_X_ Enclosed
executed by (check all applicable boxes)

_X_ inventor(s).

___ legal representative of inventor(s). 37 CFR 1.42 or 1.43

___ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.

___ this is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See Item 13 below for fee.

___ Not Enclosed

___ Application is made by a person authorized under 37 CFR 1.41(c) on behalf of all the above named inventor(s). (The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).

NOTE: It is important that all the correct inventor(s) are named for filing under 37 CFR 1 41(c) and 1 53(b).

___ Showing that the filing is authorized. (Not required unless called into question. 37 CFR 1.41(d).

6. Inventorship Statement

WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the **last** claimed invention was made, should be submitted.

The Inventorship for all the claims in this application are:

_X_ the same

or

___ are not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made.

___ is submitted

___ will be submitted

7. Language

_X_ English

___ non-English

___ The attached translation is a verified translation. 37 CFR 1.52(d).

8. Assignment

_X_ An assignment of the invention to INTERNATIONAL BUSINESS MACHINES CORPORATION

_X_ is attached. A separate

_X_ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or

___ FORM PTO 1595 is also attached.

___ will follow.

NOTE "If an assignment is submitted with a new application, send two separate letters-one for the application *and one for the assignment.*" Notice of May 4, 1990 (1114 O.G. 77-78).

9. Certified Copy (35 USC 119)

Certified copy(ies) of application(s):

(country)	**(appln. no.)**	**(filed)**
(country)	**(appln. no)**	**(filed)**

from which priority is claimed

___ is/are attached.

___ will follow.

10. Fee Calculation (37 CFR 1.16)

A. _X_ Regular application

CLAIMS AS FILED						
Number filed			**Num. Extra**		**Rate**	**Basic Fee $690.00**
Total Claims	**21**	**-20=**	1	**X**	**$18.00**	**$18.00**
Independent Claims	**4**	**-3=**	1	**X**	**$78.00**	**$78.00**
Multiple dependent claim(s), if any	0				**$260.00**	**$0.00**

___ Amendment canceling extra claims enclosed.

___ Amendment deleting multiple dependencies enclosed.

___ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing, they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency 37 CFR 1.16(d).

Filing Fee Calculation $ 786.00

B. ___ Design application
($310.00--37 CFR 1.16(f))
Filing Fee Calculation $_____

C. ___ Plant application
($480.00--37 CFR 1.16(g))
Filing Fee Calculation $_____

11. Small Entity Statement(s)

___ Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is/are attached.

Filing Fee Calculation (50% of A, B or C above) $_____

12. Request for International-Type Search (complete, if applicable)

___ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee Payment Being Made At This Time

___ Not Enclosed

___ No filing fee is to be paid at this time. (This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)

_X_ Enclosed

_X_	basic filing fee	$ 786.00
_X_	recording assignment ($40.00; 37 CFR 1.21(h))	$ 40.00
___	petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached. ($130.00; 37 CFR 1.47 and 1.17(h))	$_____
___	for processing an application with a specification in a non-English language. ($130.00; 37 CFR 1.52(d) and 1.17(k))	$_____
___	processing and retention fee ($130.00; 37 CFR 1.53(d) and 1.21(l))	$_____
___	fee for international-type search report ($40.00; 37 CFR 1.21(e))	$_____
	Total fees enclosed	**$ 826.00**

14. Method of Payment of Fees

_X_ Check in the amount of $ 826.00.

___ Charge Account No. 12-0010 in the amount of $_____. A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid

15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized

_X_ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 12-0010 :

___ 37 CFR 1.16(a), (f) or (g) (filing fees)

___ 37 CFR 1.16(b), (c) or (d) (presentation of extra claims)

_X_ **Any deficiencies in the fees provided.**

NOTE. Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency, it might be best not to authorize the PTO to charge additional fees, except possibly when dealing with amendments after final action.

___ 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application.)

___ 37 CFR 1.17 (application processing fees)

___ 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b)).

16. Instruction As To Overpayment

_X_ credit Account No. 12-0010

___ refund

Reg. No. 34,368
Tel. No. (703) 415-1015

SIGNATURE OF APPLICANT'S REPRESENTATIVE
Randy W. Lacasse

Lacasse & Associates
2001 Jefferson Davis Hwy, Suite 806
Arlington, VA 22202

X **Incorporation by reference of added pages**

Check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

___ Plus added pages for new application transmittal where benefit of prior U.S. application(s) claimed.

Number of pages added _____

X Plus added pages for papers referred to in Item 4 above

Number of pages added 2 pages plus 2 references

X Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added 3 pages

___ **Statement Where No Further Pages Added**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION FOR LETTERS PATENT

09/09/2000 15:15:00

INVENTOR:

Edlund et al.

TITLE:

A System and Method for Scheduled Events to Subscribe to Live Information Topics

BACKGROUND OF THE INVENTION

Field of Invention

The present invention relates generally to the field of electronic calendar systems. More specifically, the present invention is related to accessing dynamic content linked to different calendar events.

Discussion of Prior Art

In traditional electronic scheduling or calendaring systems, entries are static. They are entered by a calendar user as a reminder for a future event and, perhaps, an accompanying alarm is set as well. Recently, it has been recognized that it would be useful for a calendar system to automatically retrieve additional information related to the scheduled events or entries. Examples of additional information that can be automatically collected and tied to a calendar entries include information about meeting participants, flight itineraries, driving instructions, and weather forecasts. While this general concept has previously been identified, the prior art fails to provide details regarding how to implement the capability of linking calendar events and related dynamic information. The following two patents provide an introduction to electronic calendaring systems and locating additional information relevant to a calendar entry.

The patent to Borovoy et al. (5,842,009) provides for a system which automatically retrieves documents relevant to a user's calendar event. This reference focuses on determining when to retrieve information and how to determine what information might be most relevant.

The patent to Rasansky et al. (5,960,406) provides for a computerized calendar and

scheduling system which allows access to web-based clients. However, no teaching of dynamic content delivery is provided.

Whatever the precise merits and features of the prior art in this field, the earlier art does not achieve or fulfill the purposes of the present invention. The prior art does not provide for sharing and linking additional information among multiple calendar events and multiple calendar users; nor does it provide methods for updating and refreshing dynamic information.

SUMMARY OF THE INVENTION

A calendar system stores and organizes materials related to scheduled events, to-dos, addresses, etc. and allows a user to browse a calendar and select entries for viewing. In addition, each entry is linked to any number of topics related to that entry and up-to-date information on these topics are displayed when the entry is viewed. Topics are published on topic channels by one or more topic providers and a calendar system administrator defines which topics relate to which calendar entries. When a client enters information related to a new calendar entry or event, the calendar system determines which topics relate to that event and identifies corresponding topic channels which currently exist, or need to be created, between the calendar system and the topic providers. Finally, in each calendar entry, links are created to local versions of the appropriate topic channels and the entry is then persistently stored. Multiple calendar events and multiple calendar users are able to link to the same local topic channel and thereby reduce data searching, retrieval, and storage costs.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates the overall architecture of a calendar systems according to the present invention.

Figure 2 illustrates a flowchart of a method of linking a topic channel to a new calendar event according to the present invention.

Figure 3 illustrates a flowchart of a method of removing a topic channel according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

While this invention is illustrated and described in a preferred embodiment, the invention may be produced in many different configurations, forms and materials. There is depicted in the drawings, and will herein be described in detail, a preferred embodiment of the invention, with the understanding that the present disclosure is to be considered as a exemplification of the principles of the invention and the associated functional specifications of the materials for its construction and is not intended to limit the invention to the embodiment illustrated. Those skilled in the art will envision many other possible variations within the scope of the present invention.

The following definitions may assist in understanding terminology used throughout the present specification:

Service: Services gather information, organize the information into topics and publish the information periodically to update its subscribers. Services are typically distributed across a number of separate servers across multiple networks.

Service Parameters: Service parameters control things such as refresh rates for individual topics, information retrieval control parameters, etc.

Topic: A topic is a node in a topic tree. Topic names are hierarchical. For example, a weather service has two topics "Weather/San Jose" and "Weather/Boston". A subscriber can subscribe to any of these two topics; meaning the subscriber retrieves weather forecasts from both San Jose and Boston. The subscriber can also subscribe to the root topic, "Weather".

Topic Channel: A topic channel is used to pass messages from a topic publisher to a topic subscriber. Sun's™ Java Messaging Service Interface is one standard for setting up publisher/subscriber infrastructures across networks. Microsoft's™ Channel Definition Format (CDF) is a specification regarding how web publishers can offer frequently updated collections of information to interested subscribers.

Figure 1 depicts the logical components of the present invention along with their interconnections. The principles and operation of the present invention are provided by discussing the flow of information between these logical components. Calendar Server **100** is illustrated as a single entity; however, the present invention also contemplates the logical components of server **100** distributed across networked systems.

Calendar Server **100** handles request **120** from a client (not shown) and, in response, creates new calendar event (or entry, throughout the specification these terms are used interchangeably) **108**. In particular, Request Handler **102** receives request **120** for a new event **108** to be scheduled and begins processing it. Request Handler **102** first passes new event **108** to Topic Selector **104**.

Topic Selector **104** receives new event **108** and retrieves from Topic Binding Repository **106**

all the services which are associated with new event **108**. Specifically, Topic Selector **104** extracts relevant information from new event **108** and forwards it to Repository **106** which then maps the event's category (e.g. meeting, travel, vacation etc.) and the event's properties (e.g. departure location, destination, date, etc.) to a number of corresponding services. Repository **106** and its mappings are typically set up by a calendar administrator; however, the present invention also contemplates within its scope custom editing of Repository **106** entries by clients. As an example, when a client schedules a business trip to Boston, MA in their calendar, Topic Selector **104** looks in Topic Binding Repository **106** under the business trip category and finds (for example) mapping entries identifying two services: "Weather" and "FlightSchedules". Further, Topic Selector **104** extracts, from new event **108**, the destination for this business trip which results in the construction of two topic names: "Weather/MA/Boston" and "FlightSchedules/SJC/Boston". Many additional topic names and services are contemplated within the scope of the present invention.

The list of topic names generated from Topic Binding Repository **106** is passed to Topic Finder **110** which returns a list of Topic Channels **114a, 114b** and **114c**. In particular, Topic Finder **110** takes the list of topic names and, for each name, checks whether there is an existing Topic Channel already set-up. If there is, then this existing Topic Channel is used. If not, then a new Topic Channel must be created for new event **108**. To create a new Topic Channel, Topic Finder **110** instructs Topic Creator **112** to create an appropriate, new Topic Channel for new event **108**.

Topic Creator **112** receives one or more topic names (e.g. Weather/AZ/Tucson) from Topic Finder **110** and sends a request to an administrator **160** of a remote Topic Provider **150** to create a new Topic **156a**, **156b** and **156c** and Topic Channel **158a**, **158b** and **158c** for a given topic name.

Upon successful creation, Topic Creator **112** creates corresponding local Topic Channel(s) **114a, 114b** and **114c**, which are also linked to remote Topic Channels **158a, 158b** and **158c**, and returns these channel names to Topic Finder **110**. Remote Topic Provider(s) **150** and their administrator(s) **160** control, using known methods, how services **154a** and **154b**, Topics **156a, 156b** and **156c**, and Topic Channels **158a, 158b** and **158c** are internally managed and arranged. While depicted as a homogeneous block in figure 1, multiple and distributed Topic Providers **150** are also considered within the scope of the present invention.

Topic Finder **110** receives from Topic Creator **112** a list of topic channels (existing or newly created) corresponding to new event **108** and forwards this list to Topic Selector **104** which then passes the list to Request Handler **102**.

Request Handler **102** continues processing new event **108** by adding a link in new event **108** to each Topic Channel **114a, 114b** and **114c** received from Topic Selector **104**. Finally, Request Handler **102** stores new event **108** in a persistent calendar store (not shown) in order to allow retrieval at a later time.

In the event that a client requests deletion of a scheduled event, Request Handler **102** first removes all the links to the event's Topic Channels and then proceeds to erase the event from the persistent calendar store.

Figure 2 depicts a flowchart of the logic of creating links to topic channels in new events. This figure focuses on the flow of the logic without explicit references to the components performing the steps.

First, a new event is retrieved in step **202**. Next, in step **204**, topic names are determined which correspond to this type of event and to the data characterizing this event. These topic names

are individually looped through, in step **206,** to determine if a corresponding Topic Channel exists (step **208**) or needs to be created (step **210**). In step **212**, a list of corresponding Topic Channels is constructed and step **214** loops back around to ensure all topic names have been analyzed. Processing continues, in step **216**, by linking the identified Topic Channels to the new event. After storing the new event in any type of well-known computer storage media, in step **218**, processing finishes in step **220**.

Figure 3 illustrates the logical flow of removing a subscriber from a topic. In step **302**, the link from an event to a topic is deleted and step **304** tests whether there are any other links to the particular topic. If there are, then the flow ends in step **308**. If there are no other links, however, the topic is deleted in step **306** and then flow completes with step **308**.

The present invention allows calendar events to subscribe to specific topics that are relevant to that particular event. Relevant topics include weather forecasts, flight schedules, traffic reports, local news stories and other information. Information is published by an information service and retrieved by one or more information subscribers. Using the infrastructure of the present invention, multiple calendar events are able to share the same information by having each separate event, which relies on similar live information, link to the same local Topic Channel. For example, if two calendar users are traveling to New York on the same day, both events are linked to information retrieved from the New York weather topic and New York local news topic. The present invention relieves the need to repeatedly search, retrieve and store additional information for every single calendar event scheduled. These performance improvements are true for different calendar events belonging to a single user as well as separate calendar events belonging to different users.

CONCLUSION

A system and method has been shown in the above embodiments for the effective implementation of linking electronic calendar events to related, dynamic information by subscribing the events to live information topics. While various preferred embodiments have been shown and described, it will be understood that there is no intent to limit the invention by such disclosure, but rather, it is intended to cover all modifications and alternate constructions falling within the spirit and scope of the invention and as further defined in the appended claims. For example, the present invention should not be limited by calendaring software/program, computing environment, specific computing hardware, specific information service providers, particular publication/subscription hierarchies, specific enterprise messaging interfaces, particular push-content technologies and specific distributed arrangement of the system's functional components. In addition, the present invention may be implemented on a conventional IBM PC or equivalent, multi-nodal system (e.g. LAN), across extended networks such as the Internet or using portable equipment such as laptop computers or wireless equipment (RF, microwaves, infrared, photonics, etc.).

CLAIMS

1. A method of subscribing electronic calendar events to dynamic information providers comprising the steps:

receiving a calendar event;

determining one or more live information topics which are related to said calendar event;

opening at least one subscription, each of said at least one subscription corresponding to one of said one or more live information topics, and

incorporating, within said calendar event, a link to each of said at least one subscription.

2. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, comprising the additional step of:

parsing said calendar event to identify at least one event category.

3. A method of subscribing electronic calendar events to dynamic information providers, as per claim 2, wherein said at least one event category is used when determining said one or more live information topics.

4. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, comprising the additional step of:

parsing said calendar event to identify at least one event characteristic.

5. A method of subscribing electronic calendar events to dynamic information providers, as per claim 4, wherein said at least one event characteristic is used when determining said one or more live information topics.

6. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, wherein said step of opening at least one subscription further comprises the step:

for each of said one or more live information topics, performing the steps:

determining if a corresponding subscription already exists;

if said corresponding subscription does not exist, creating and opening said corresponding subscription, and

if said corresponding subscription does exist, then opening said corresponding subscription.

7. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, wherein said one or more information topics are published by an information service.

8. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, wherein said one or more information topics are published as one or more topic channels.

9. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, further comprising the step:

persistently storing, in computer storage, said calendar event.

10. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, wherein said method is implemented locally or remotely on one or more computer-based systems.

11. A method of subscribing electronic calendar events to dynamic information providers, as per claim 1, wherein said method is implemented across networks comprising any of LANs, WANs, cellular, Internet, or Web-based networks.

09/25/2002 15:13:57

12. A method for linking calendar events to live information topics comprising the steps:

receiving a calendar event;

determining a set of topic names associated with said calendar event;

for each particular topic name in said set of topic names, performing the following steps:

determining if a topic channel exists for said particular topic name;

if said topic channel does not exist, then creating a corresponding topic channel;

if said topic channel does exist, then identifying said topic channel as a corresponding topic channel, and

adding said corresponding topic channel to a set of topic channels;

for each particular topic channel in said set of topic channels, creating a link, in said calendar event, to said particular topic channel, and

persistently storing said calendar event.

13. A method for linking calendar events to live information topics, as per claim 12, wherein said step of determining a set of topic names further comprises the steps:

extracting from said calendar event one or more event descriptors, and

determining, based on said one or more event descriptors, said set of topic names.

14. A method for linking calendar events to live information topics, as per claim 13, wherein said one or more event descriptors are event categories.

15. A method for linking calendar events to live information topics, as per claim 13, wherein said one or more event descriptors are event characteristics.

16. A method for linking calendar events to live information topics, as per claim 12, wherein said method is implemented across networks comprising any of LANs, WANs, cellular, Internet, or Web-based networks.

17. A method for linking calendar events to live information topics, as per claim 12, wherein said method is implemented locally or remotely on one or more computer-based systems.

18. A subscription system which subscribes electronic calendar events to live information topics comprising:

a calendar event;

a plurality of topic channels;

a mapper which determines a list of topic names related to said calendar event;

a locator which identifies a set of topic channels corresponding to said list of topic names, said locator further identifies at least a first and second subset of said set of topic channels;

said first subset is populated by topic channels which currently exist within said calendar system;

said second subset is populated by topic channels which currently do not exist within said calendar system;

a channel creator which creates, within said calendar system, a topic channel for each element of said second subset, and

a linker which incorporates in said calendar event a link to at least one element of said set of topic channels.

19. A subscription system which subscribes electronic calendar events to live information topics, as per claim 18, wherein said mapper also extracts at least one event category for said calendar event which said mapper uses to determine said list of topic names.

20. A subscription system which subscribes electronic calendar events to live information topics, as per claim 18, wherein said mapper also extracts at least one event characteristic for said calendar event which said mapper uses to determine said list of topic names.

21. An article of manufacture comprising a computer user medium having a computer readable program code embodied therein which implements subscribing calendar events to live information topics, said subscribing comprising the steps:

receiving a calendar event;

determining at least one live information topic which is related to said calendar event;

opening at least one subscription, each of said at least one subscription corresponding to one of said at least one live information topic, and

incorporating, within said calendar event, a link to each of said at least one subscription.

ABSTRACT OF THE DISCLOSURE

"A System and Method for Scheduled Events to Subscribe to Live Information Topics"

A calendar system stores and organizes materials related to scheduled events, to-dos, addresses, etc. and allows a user to browse a calendar and select entries for viewing. In addition, each entry is linked to any number of topics related to that entry and up-to-date information on these topics are displayed when the entry is viewed. Topics are published on topic channels by one or more topic providers and a calendar system administrator defines which topics relate to which calendar entries. When a client enters information related to a new calendar entry or event, the calendar system determines which topics relate to that event and identifies corresponding topic channels which currently exist or need to be created between the calendar system and the topic providers. Finally, in each calendar entry, links are created to local versions of the appropriate topic channels and the entry is then persistently stored. Multiple calendar events and multiple calendar users are able to link to the same local topic channel and thereby reduce data searching, retrieval, and storage costs.

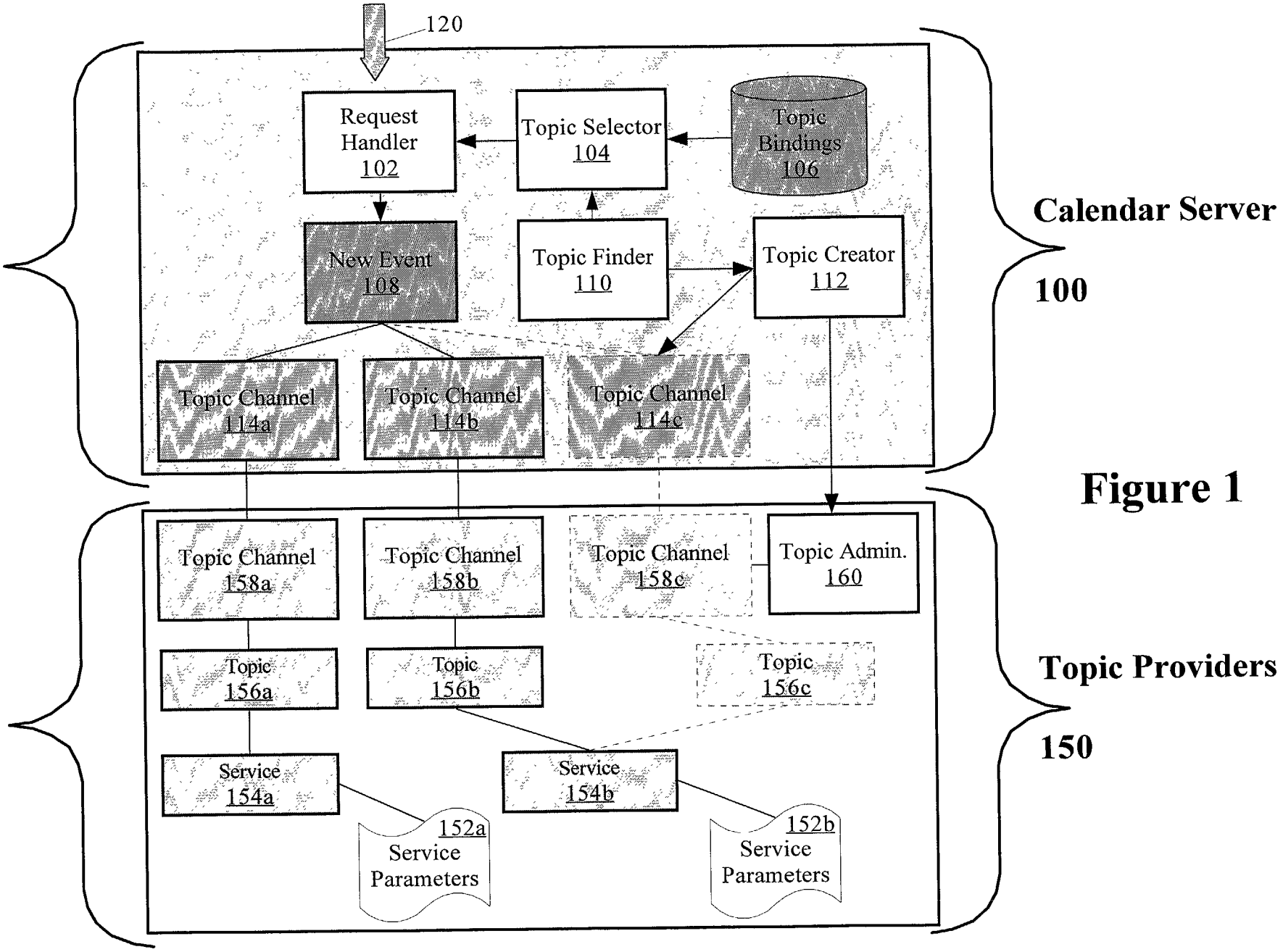

Figure 1

09531016 .032000

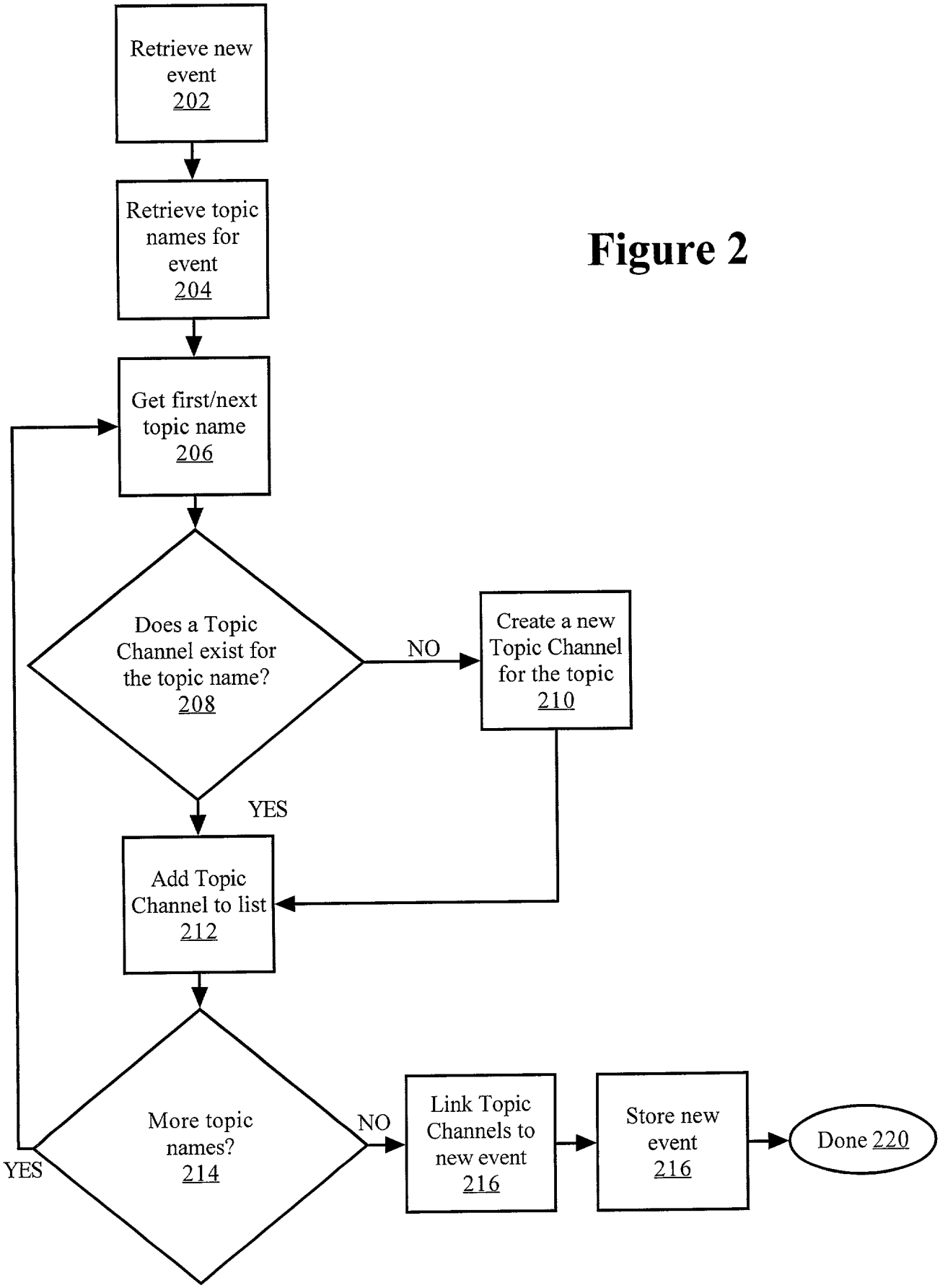
Retrieve new event 202
Retrieve topic names for event 204
Get first/next topic name 206
Does a Topic Channel exist for the topic name? 208
NO
Create a new Topic Channel for the topic 210
YES
Add Topic Channel to list 212
More topic names? 214
NO
YES
Link Topic Channels to new event 216
Store new event 216
Done 220

Figure 2

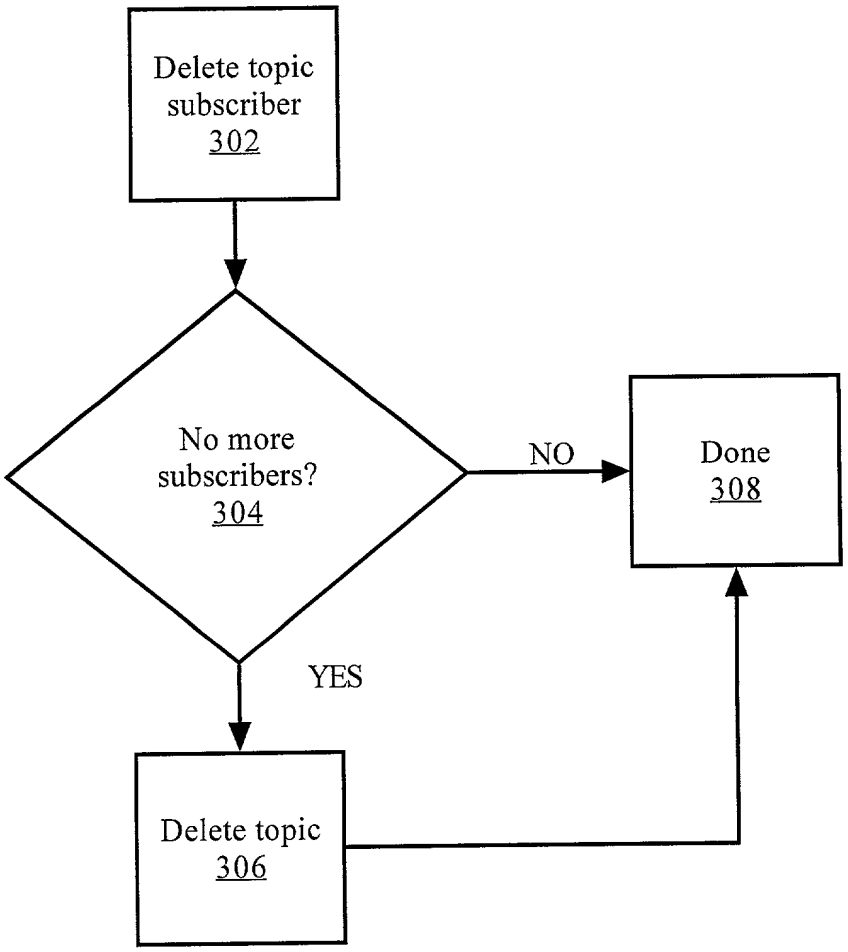
Delete topic subscriber 302
No more subscribers? 304
NO
Done 308
YES
Delete topic 306

Figure 3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECLARATION FOR PATENT APPLICATION

INVENTOR(S):

Edlund et al.

TITLE:

A System and Method for Scheduled Events to Subscribe to Live Information Topics

DOCKET NO.:

AM9-99-0216

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled, A System and Method for Scheduled Events to Subscribe to Live Information Topics, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and having also identified below any foreign application for patents or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Applications				
			Priority Claimed:	Y/N
Number	Country	Day/Month/Year Filed		

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the National or PCT international filing date of this application.

Application No.	Filing Date	Status-patented, pending, abandoned
Application No.	Filing Date	Status-patented, pending, abandoned

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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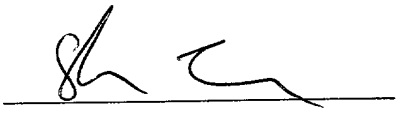
Date: 3/13/2000 Signature: 

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